

□ 1: Gene. 1997 Dec 5;203(1):65-73.

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Erratum in:

- Gene 1998 Mar 27;210(1):173. Jolivet-Renaud C [corrected to Jolivet-Reynaud C].

### **Beta2 toxin, a novel toxin produced by *Clostridium perfringens*.**

**Gibert M, Jolivet-Reynaud C, Popoff MR.**

Unite des Toxines Microbiennes, Institut Pasteur, Paris, France.

A novel toxin (Beta2) and its gene were characterized from a *Clostridium perfringens* strain isolated from a piglet with necrotic enteritis. At the amino-acid level, Beta2 toxin (27670 Da) has no significant homology with the previously identified Beta toxin (called Beta1) (34861 kDa) from *C. perfringens* type B NCTC8533 ( Hunter, S.E.C., Brown, J.E., Oyston, P.C.F., Sakurai, J., Titball, R.W., 1993. Molecular genetic analysis of beta-toxin of *Clostridium perfringens* reveals sequence homology with alpha-toxin, gamma-toxin, and leukocidin of *Staphylococcus aureus*. Infect. Immun. 61, 3958-3965). Both Beta1 and Beta2 toxins were lethal for mice and cytotoxic for the cell line 1407, inducing cell rounding and lysis without affecting the actin cytoskeleton. The genes encoding Beta1 and Beta2 toxins have been localized in unlinked loci in large plasmids of *C. perfringens*. In addition, Beta2 toxin-producing *C. perfringens* strains were found to be associated with animal diseases such as necrotic enteritis in piglets and enterocolitis in horses.

PMID: 9426008 [PubMed - indexed for MEDLINE]

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